

## ACKNOWLEDGEMENTS

I am thankful to the Director, Zoological Survey of India, Calcutta for necessary faci-

lities and to Dr. Karl V. Krombein, Natural History Museum, Smithsonian Institution, Washington, D.C., U.S.A. for placing this material at my disposal.

## REFERENCES

SRIVASTAVA, G. K. (1975): Notes on Indian species of the genus *Irdex* Burr (Dermaptera: Labiidae). *Dr. B. S. Chauhan Comm. Vol.*: 267-278. K. K.

Tiwari and C. B. Srivastava (Eds.), Zoological Society of India, Calcutta.

A NEW SPECIES OF *ANEMONE* L. (RANUNCULACEAE) FROM TEHRI DISTRICT (GARHWAL) IN INDIA<sup>1</sup>

A. K. GOEL AND U. C. BHATTACHARYYA<sup>2</sup>  
(With seven text-figures)

During the course of studies on "Herbaceous Flora of Tehri District (Garhwal)" a taxon belonging to the genus *Anemone* L. was collected from Gangi (3000 m) in August 1978. A critical study of literature and herbaria shows that it is taxonomically distinct from any other known species of *Anemone* L. and is being described as new.

*Anemone raui* sp. nov.

*A. elongatae* D. Don affinis, sed different foliis majoribus, 9-18 (-20) cm daim, floribus in cymis dischasialibus, perianthio anguste obovate, parviore, 9-15 x 4-6 mm, staminibus 20-35, pistillis 3-6, acheniis 1-4, elliptico-ovatis, rostro parum curvato, seminibusque glabris.

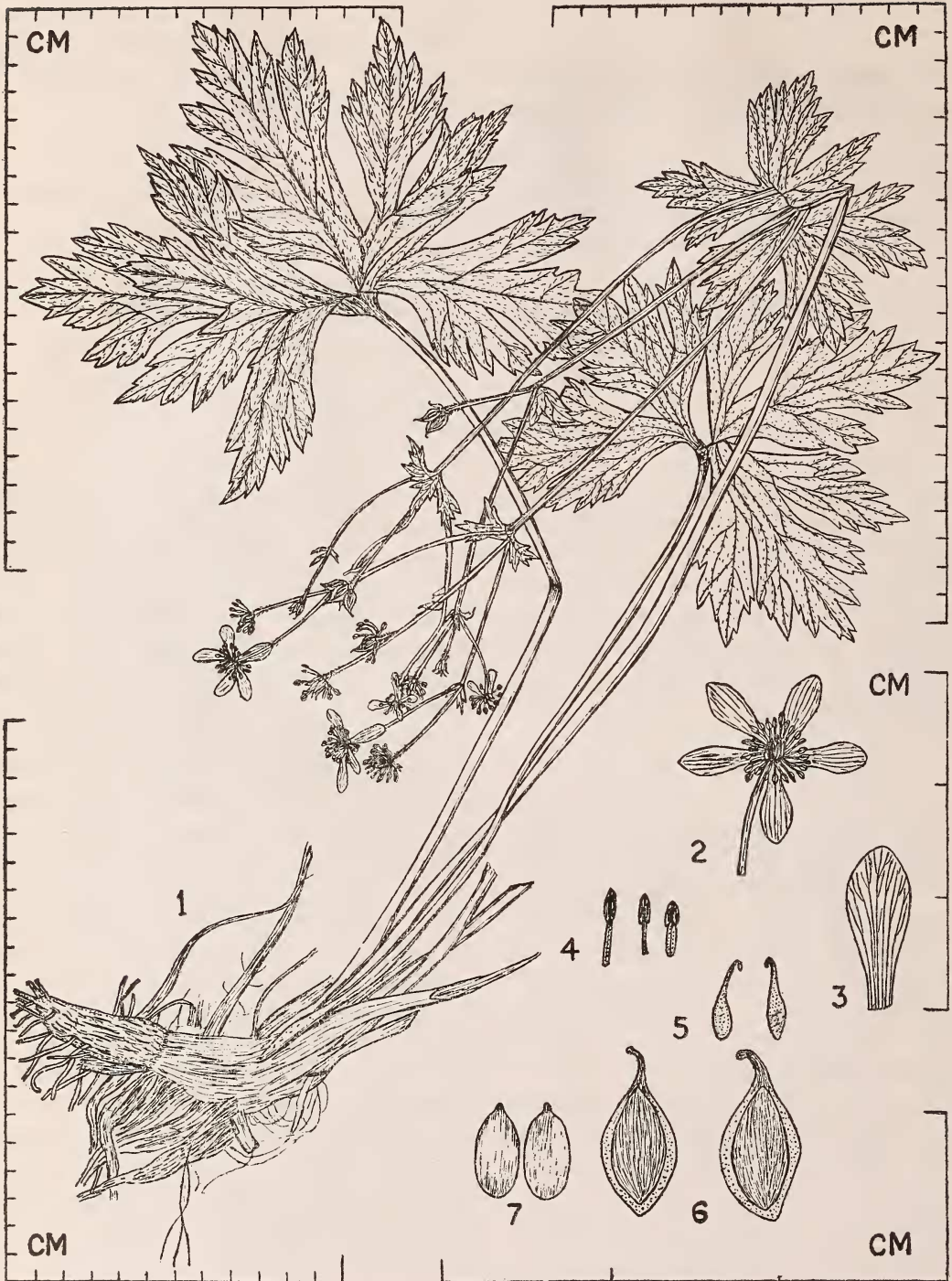
Holotypus lectus ad locum Gangi, 3000 m, Garhwal, die 12-8-1978, *A. K. Goel* 64419-A, et positus in herbario BSD.

Herbae erectae, 50-75 cm altae, 0.4-0.6 cm crassae, caudex perennis. Caulis 30-50 cm longus, basi validus, petiolorum fibrosis reliquiis

tectus, glaber, villosus ad articulos involucrales. Folia radicalia longipetiolata, petioli 12-32 cm longi, anguste vaginantes ad basin; lamina 9-18 (-20) cm diam, palmatim 3-loba, pentitus cordata, subglabra, pilosa praesertim in nervis, segmenta sessilia, inaequaliter late obovata, profunde vel non profunde 3-partita, cuneata, 5-10 x 4.5-9 cm; segmenta secundaria denuo 3-loba, irregulariter grosse serrata. Inflorescentia varie divisa cyma dichasialis, haud umbella. Involucrum ordinis primi-2, sessile, utrinque 3-5 x 4-6 cm, late obovatum, cuneatum, subglabrum, utrinque pilosum in nervis, segmenta trifida, cuneata, unumquidque segmentum 3-lobum, irregulariter serratum; involucrum ordinis secundi et ultra parvius, late obovatum, cuneatum, segmenta 3-loba, apice acuta, 1.5-3.0 cm longa; pedunculi 5-15 cm longi, pedicelli 2.5-8 cm longiis medianus semper parvior, sursum parum puberulus ad pubescens. Perianthium 5, anguste obovatum, 9-15 x 4-6 mm, album, glabrum. Stamina 20-35, filamenta 1.5-3 mm longa, complanata ad filiformia, inaequalia, antherae 0.8-1.2 mm longae, anthera exterior lineari elliptica, ea interior late obovata. Pistilla 3-6, sessilia, 3.0-3.5 mm longa,

<sup>1</sup> Accepted March 1982.

<sup>2</sup> Northern Circle, Botanical Survey of India, 3, Lakshmi Road, Dehra Dun, (U.P.).



Figs. 1-7. *Anemone raii* sp. nov.: 1. Habit; 2. Flower; 3. Petal; 4. Stamens; 5. Gynoecia; 6. Achenes; 7. Seeds. (Goel 64419A, BSD).

glabra, ovarium compressum, lineari-ovatum, stylo leniter curvato, in stigmati apice obtusum angustato. Achenia, maturitates attingentes, pauca (1-4), plana, elliptico-ovata, 5-7 x 3-4 mm, symmetrica. Stylus persistens, parum curvus, ad achenium contiguus, anguste marginatus. Semina plana, 5-6 x 2.5 mm, late lanceolata, atro-brunnea, glabra.

***Anemone raii* sp. nov.**

Allied to *Anemone elongata* D. Don, but differs in its large 9-18 (-20) cm across leaves; inflorescence a dichasial cyme; perianth narrowly obovate, smaller, 9-15 x 4-6 mm; stamens 20-35; pistils 3-6; achenes 1-4, elliptic-ovate beak slightly curved. Seeds glabrous.

*Holotype*: GARHWAL: Gangi 3000 m, 12-8-1978; *A. K. Goel* 64419-A, deposited at the Herbarium of the Botanical Survey of India, Northern Circle, Dehra Dun (BSD).

Erect herbs 50-75 cm high, 0.4-0.6 cm thick; root stock perennial. Stem 30-50 cm long, base stout covered with fibrous remains of petioles, glabrous, villous at involucreal joints. Radical leaves long petiolate; petioles 12-32 cm long, narrowly sheathing at base; lamina 9-18 (-20) cm across, palmately 3-lobed, deeply cordate, subglabrous, hairy chiefly on nerves; segments sessile, unequally broadly obovate, deeply or shallowly 3-partite, cuneate, 5-10 x 4.5-9 cm; secondary segments again 3-lobed, irregularly coarsely serrate. Inflorescence a variously divided lax dichasial cyme, never in umbels. Involucres of first order-2, sessile, each 3-5 x 4-6 cm; broadly obovate, cuneate, subglabrous, hairy on nerves on both surfaces; segments trifid, cuneate, each segment 3-lobed, irregularly serrate; involucres of the second order and above, smaller, broadly obovate, cuneate, segments 3-lobed with acute apex. 1.5-3.0 cm

long; peduncles 5-15 cm long. Pedicels 2.5-8 cm long; median always smaller, slightly puberulus to pubescent above. Perianth-5, narrowly obovate, 9-15 x 4-6 mm, white, glabrous. Stamens 20-35; filaments 1.5-3.0 mm long. Complanate to filiform, unequal, anthers 0.8-1.2 mm long; outer linear-elliptic, inner broadly ovate. Pistils 3-6, sessile, 3.0-3.5 mm long, glabrous, ovary compressed, linear-ovate with gently curved style, tapering into obtuse stigmatic apex. Achenes few (1-4) attaining maturity, flat, elliptic-ovate, 5-7 x 3-4 mm, symmetrical; style persistent, slightly curved, contiguous to achene, narrowly margined. Seeds flat, 5-6 x 2.5 mm long, broadly lanceolate, dark brown glabrous.

*Type*: GARHWAL: Gangi 3000 m, 12-8-1978; *A. K. Goel* 64419-A (Holotype-BSD); KUMAON: Below Odiyar 2900 m, 8-8-1972, *C. M. Arora* 49738 (Paratype-BSD); Below Odiyar 3300 m, 6-8-1972, *C. M. Arora* 49636 (Paratype-BSD).

*Flowers & Fruits*: July-September.

*Distribution*: INDIA: Garhwal and Kumaon Himalaya in Uttar Pradesh.

*Ecology*: Common on open grassy slopes, between rocks and near streams in temperate regions.

*Etymology*: The species has been named in honour of Dr. M. A. Rau, a well known botanist, plant explorer and retired Deputy Director, Botanical Survey of India, Northern Circle, Dehra Dun.

ACKNOWLEDGEMENTS

We are thankful to the Director, Botanical Survey of India, Howrah for encouragement and to Dr. N. C. Majumdar, Systematic Botanist, Botanical Survey of India, Howrah, for providing the latin diagnosis.